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ABSTRACT

Composed of three separate papers, this document contains the initial design work required for the National Education Practice File Development Project. The first paper presents the ideas put forth by educators regarding their perceptions of what a "practice file" should be and how it might be organized and maintained. Areas considered include file content, acquisitions, selection, processing, vocabulary development and maintenance, file maintenance, source availability, search and retrieval capability, user products and services, and organization for operating the file. Appended is a directory of the project advisory group. The second paper is a review of existing educational information products and services with which the new file might be coordinated. In particular, it acknowledges the fact that the new file will have to be conceived in terms of the great variety of existing systems--and to illustrate this point it reviews three compilations of educational products and services, three additional products, and three additional services. The third paper documents the selection process used to choose three design alternatives for each file feature discussed in the first paper and presents the recommendations. A short fourth paper discussing the issue of content selection is included with the document. (JD)

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NATIONAL EDUCATION PRACTICE

FILE IDEAS

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PRODUCT 1.1

Submitted as Part of
NIE Contract #400-77-0095
The National Education Practice File Development Project

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"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Gregory Benson

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

December, 1977

IR006783

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Introduction

This report documents the initial design work required for the National Education Practice File Development Project. It contains the ideas put forth by educators regarding their perceptions of what a "practice file" should be, and how it might be organized and maintained. The suggestions were gathered through personal interviews and group discussions conducted around the United States during November and December, 1977. Many agencies were visited including:

- Education Commission of the States
- National Education Association
- Council of Chief State School Officers
- Far West Educational Laboratory
- Northwest Educational Laboratory
- San Mateo Educational Resource Center
- University of Southern California
- New York State Education Department

Also, representatives of the following educational agencies or programs were interviewed in group or individual sessions:

- State Education Agencies
- Intermediate Education Agencies
- Local education agencies
- Research and Development Exchange program
- Higher educational agencies
- ERIC clearinghouses
- Educational resource centers
- Teachers centers

-National Diffusion Network

-Women's Equity Project

-Research and Development Utilization program

-State Capacity Building program

-City school districts

-Commercial publishers

-Educational consulting firms

Visitations and meetings* were scheduled with agencies, programs and individuals that represented educational areas complementary to those areas represented by the Project Advisory Committee. Advisory Committee membership provided their input and generation of ideas at the initial meeting of that group held in Washington, D.C. on December 14 and 15, 1977. A summary of that meeting is attached as Appendix A. This process and the variety of suggestions it has generated has led to the potential design of a creative, responsive, resource system for educational practitioners in the United States.

This paper shall be utilized as a source for developing three preliminary design models for the practice file. Those three preliminary designs shall be outlined in some depth and analyzed to determine which is most feasible for implementation. When that decision has been made, a fully developed design shall be prepared and that design implemented in a pilot start-up and test phase to last approximately one year.

*It should be noted that the project RFP did not allow data collection through instrumentation requiring OMB clearance, therefore, ideas and other information were gathered personally.

The ultimate implementation of a National Education Practice File for use by educators in their efforts to improve education shall have far reaching implications. Today, information relating to educational practice is either non-existent or available only through fragmented sources. An easily accessible practice file shall enable those filling a "linking" role to draw upon a variety of educational practice alternatives when serving their clients. It shall also allow practitioners direct access to information in their efforts to solve their own problems or stay abreast of developments within their areas of interest.

BRS, Inc. is grateful to the many educators and members of the Project Advisory Committee who spent the time, gave thoughtful consideration and generated creative suggestions in this initial design work.

File Feature Design Alternatives

Shown on the following pages are the various file features and the ideas (alternatives) generated within each. It should be kept in mind that the specific ideas may be combined within a file feature when developing conceptual schemes for both the preliminary designs and the final design. Also, since the ideas contained within each feature vary with respect to the resources required, consideration can be given to a design that implements a feature with a lower level of resources but with the intention of phasing into perhaps more efficient or sophisticated alternatives as financial resources are made available.

The (1.) decision process related to the selection of three preliminary designs and (2.) rationale and/or intentions related to combining feature alternatives or for phasing shall be documented in Product 1.3 following the meeting with NIE staff on January 23, 1978.

Throughout this report are "mini-scenarios" to illustrate specific suggestions within a file feature. At the end of the report is a scenario that outlines the context within which a practice file might best operate.

I. File Content

Suggested content for the National Education Practice File varied significantly with the source of the suggestions. The variance, however, was consistent with the findings of the "Market Study" in that the file content alternatives suggested were reflective of the "user/purpose perspective" held by those offering alternatives.

In addition to the variance related to the user/purpose perspective, important issues were raised relating specifically to the variance inherent in the specific potential file content. An inherent characteristic of any content being considered is the capability of the material to stand alone. Some materials suggested as file content have this capability. To illustrate this.....

Scenario #1

Ms. Kathryn Pierce, a fourth grade teacher at Rocky Mountain Elementary School in Winter Park, Colorado is seeking some high motivational material for students with reading difficulties. Her intent is not solely related to reading improvement since she is attempting to provide her students with some career awareness opportunities.

Having noticed the material related to the National Education Practice File in the faculty room, she calls the nearest service delivery point which is located at the Board of Cooperative Educational Services (BOCES). There, an information specialist assists Kathy in further defining her information needs.

Following that, the information specialist conducts a computer search of the practice file and forwards the print-out of material abstracts to Kathy. One of the abstracts is entitled "The Health Food Store - A Career Unit for Grade 4". The abstract indicates that this is a primary unit with teacher and student materials specifically prepared for students with reading difficulties. Further, the abstract indicates that the primary unit teaches children the overall operation of a health food store and that the content includes rationale goals; performance objectives; materials; suggested resource persons and among other activities, recipes.

I. File Content - continued

The "availability note" on the abstract indicates that the materials were developed by the City School District of Philadelphia but that her local BOCES has copies of the material for loan.

Kathy calls the BOCES and is sent the material. When she receives them she finds that she can not only deal with the reading difficulties and career awareness but also with some math concepts since the recipes include fractions and she has a need to double the recipe so all the children can "taste".

Kathy received the materials on Tuesday. On Wednesday she made them a part of her lesson plans for the following Monday.

Clearly, the material in Scenario #1 represents file content that can stand alone. Kathy was able to request, review, and adapt them for her purposes as part of her lesson plans without any outside assistance or decision-making requirement beyond her area of responsibility. This is one end of a continuum with regard to that aspect of file content.

In contrast to the "stand alone" content, there have been suggestions that content include National Diffusion Network (NDN) validated projects. Inclusion of that kind of material represents (1.) a more generic level of information and (2.) information that is not necessarily intended to stand alone. Rather, these materials are frequently designed to introduce file users to a project at an awareness level only. Beyond that, a State Facilitator and/or project staff (for Demonstration Projects) are required to assist an interested user and his/her agency with the implementation of the project, if, the project meets the needs of the requestor. This is a rather lengthy, involved process of assessing needs and technical assistance that requires decision-making beyond the classroom level and usually an agency committment at both ends (the producer and the consumer).

I. File Content - continued

Ultimate decisions related to the content of a National Practice File must consider this issue of "autonomy of resources" as well as the intended target audience and intended purposes of the target audience. With regard to the target audience, the "fractionalization" of decision-making shall make considerations in that regard extremely difficult to generalize.

Worthy of mention are two specific purposes that, though they have implications for content that falls within the continuum, are major concerns reflected by those with a high degree of interest in the ultimate design of a National Education Practice File. The first purpose is very nearly that of a management information system (MIS) function. The content relates closely to a monitoring function whereby SEA funded projects (and non-SEA funded projects identified as "promising" or in priority areas) are included in the file during identifiable phases in their evolution. The various project reporting phases are:

1. On-going Project - A project just funded or initiated for which their is no evaluation data yet available.
2. Promising Practice - A project is completed and evaluation results are positive.
3. Demonstration Projects - These may be projects funded as NDN or IV-C demonstration projects or projects proven to be successful that have capability to demonstrate, provide implementation materials or offer technical assistance to potential adopters.

4. Validated Project - These projects can be NDN or SEA-validated or validated through replication in other sites.

It is not intended that this content be restricted to those projects funded by or through SEA's and this is evident in some of the specific content suggestions (eg. private sector R&D projects, LEA demonstration and trial projects). However, the nature of this file content is more generic than the autonomous content and may be of greater value to levels of authority above the teacher level. This is not to imply that content of this nature has no value to the practitioner. However, it represents practices usually broader than a single classroom and therefore is often beyond the decision-making authority of a single teacher. In short, the content of this file would seem to best answer the administrator's question, "What's going on?", as opposed to the teacher's question, "What can I do?".

The second purpose or concern was reflected by those who currently fill an intermediary role as the "deliverer of educational information services". The motivation for this suggested content seems to stem from frustration at two levels. First, from the user perspective there is a fragmented, difficult to access, array of educational resources available. This discourages and often prohibits practitioner usage. Secondly, from the perspective of an information intermediary or "provider of information services", this fragmentation often is so severe that information service staff are not available to search all relevant sources in response to a practitioner's request. This leads the intermediaries to feel that they are doing the requestor a disservice by not responding as might be possible, or providing little service since they are only able to refer requestors to those alternate sources.

I. File Content - continued

This content area is not mutually exclusive from the others, but focuses on those resources already formally developed and not available through a single retrieval system. Such resources include the OE catalog of Programs That Work, the NIE Catalog, various lab and center catalogs, SEA validated projects, SEA-identified exemplary programs (Special education, career education, ESEA Title I, bilingual education, migrant education, competency based education, etc.). Efforts to formally compile information of this type is ongoing at a variety of agencies. In fact, several SEA's have or are developing computerized files of exemplary or promising practices and many more have such information in non-computer retrievable form.

It does not suffice to include a full catalog in the National Practice File since that does not solve the problem of necessitating a manual search when the catalog is retrieved. Each entry in existing catalogs or listings must be made discrete, searchable entries in the National Practice File.

One other generalization might be made regarding the file content ideas, that being the widespread concern with the elementary and secondary education levels. Projects and programs operating in schools of higher education were suggested, but almost always as they related to inservice education that ultimately affected the elementary and secondary levels.

Listed below are the specific content areas suggested for inclusion in the National Education Practice File (in no order of significance):

-NDN validated projects

-SEA validated projects

I. File Content - continued

-Managerial practices

-References to other resources

-Non-validated projects (with or without evaluation information)

-Needs assessment techniques

-Competency based education programs

-Exemplary programs (evaluation data available)

-Commercially produced materials

-Curriculum materials (from all sources)

-Federal and state funded R&D projects

-Private R&D projects

-LEA demonstration sites

-Funding sources

-Alternative education programs

-Community involvement programs

-Individualized education programs

-Educational lab and center products

-Educational legislation

-Other sources (catalogs) or files being developed

-SEA documents

-English language materials from other countries

-Inservice education programs

-Human resources

-Computer based resource units

I. File Content - continued

-Books in the field of education

-Bilingual educational materials

-Tests and measurements

-Educational organizations

II. Acquisitions

Acquisition procedures for both a practice surrogate and the sources (if sources are acquired) shall vary somewhat depending on the content ultimately selected for the Practice File. In all cases, however, it was felt that a modification of the current ERIC acquisition procedures would be required. The major modifications to the current ERIC procedures relate primarily to an expansion of the agency relationships in both number and kind to insure acquisition of the content desired.

Specific suggestions regarding acquisition relationships included:

- Establish a distinct ERIC clearinghouse to develop relationships with producers.
- Establish acquisition relationships with each regional exchange (or SEA in those regions where there is no exchange). SEA's should be provided a model whereby they establish an acquisition network within the state that includes:
  - Intermediate agencies
  - LEA's
  - Private producers
  - Federally and state funded efforts
  - Teacher centers
  - Libraries (school and public)
  - Teachers associations
  - Regional accreditation agencies

II. Acquisitions - continued

Other agencies with which acquisition relationships should be established include:

-National funding sources (public and private)

-Labs and Centers

-State funding sources (public and private)

-Commercial producers

It was suggested that the Federal and State level funding sources require a standardized abstract format for submission to the National Practice File. Then, as projects are funded or identified as exemplary or written up for inclusion in catalogs or listings, there is a ready-made abstract for inclusion in the computerized file.

In most cases, it was suggested that acquisition relationships be organized around governmental agencies with a responsibility in the area of education. It was also felt that these relationships would have to include funding support for the acquisition process at both the regional and state levels.

With regard to organizing a national acquisition effort through SEA's, it was cautioned that there are political and other barriers to doing so. Though many states may organize such efforts on their own, many will not, and the availability of Federal dollars for such an endeavor will probably not change that variability among states with regard to participation.

As an alternative to an acquisition configuration that relies heavily on states, national organizations such as the National Education Association were suggested. It must be kept in mind, however, that the national education organizations are also faced with political barriers. In that regard, it was suggested that if a national organization is seriously considered as the focal point for acquisition efforts, that an attempt be made to obtain an endorsement of that effort by chief state school officers.

II. Acquisitions - continued

As a means for taking inventory of organizational capabilities with regard to the design acquisition and input requirements, it was suggested that an investigation be made regarding the potential of a variety of agencies at the national, regional, state, intermediate and local levels. Product 1.2 was to be an identification of existing products and services. Part II of that product scope might be altered to allow for the selected investigation of potential capabilities of agencies as was suggested here.

It was felt that the delivery nodes in the ultimate design would probably hold the greatest potential as acquisition nodes. To facilitate that notion, it was suggested that terminals be two-way to allow for both (1) searching of the practice file and (2) input to the file. Such a capability would reduce the number of inter-organizational relationships required for acquisition purposes but not preclude the need for some centralized or regional processing. Such a capability might be illustrated as follows:

Scenario #2

The practice file delivery network includes a node or service point at the Nassau County BOCES in the Educational Resource Center. Joyce Farnsworth is the information specialist and she performs computer searches of the practice file and a number of other databases for educators in Nassau County. Computer searches are not delivered directly to the requestor, rather, a BOCES-housed content specialist reviews the search and delivers it to the requestor. Then, together, the content specialist and the requestor discuss the appropriateness of the computer output and select specific materials and practices for which the source materials are desired.

Since the content specialists have a substantial amount of contact with local practitioners in a problem solving context, they frequently come in contact with unique and effective solutions to common educational problems.

II. Acquisitions - continued

Mr. Frank Conroy, the mathematics specialist with the BOCES, was working with the Riverside Junior High School math teachers in an effort to identify introductory materials related to use of the electronic hand calculator. Joyce Farnsworth conducted a search of both ERIC and the National Practice File and found little information or materials available. It was decided, therefore, that the Riverside math teachers would develop their own two-week introductory course which they did during the summer months with some funding support from the district offices.

When it was completed, Frank Conroy thought it might be of value to other educators in the United States since the databases had little to offer in this specific instructional area. He went to the Resource Center and completed a "National Practice File Data Entry Form" which required a brief description of the materials, objectives, target student group and evidence of success and a note that the material was available from Riverside for $2.00. After completing the form, he gave it to Joyce Farnsworth who sat down at the terminal and transmitted the information direct to the National Clearinghouse for Educational Practices (NCEP) where it was stored on disc automatically.

The following day at the NCEP, Carla Evans, an input editor, sat at a terminal and called up the new entries from the previous day. First on her CRT was the Riverside entry entitled An Introduction to the Hand Calculator for Junior High Students - A Two-Week Course of Instruction (15 hours). Carla checked to see that all information fields were completed correctly, assigned appropriate descriptors and an "ID number". After completing several other entries, she transferred the material directly to the main practice file database where it became immediately available (online) to all educators in the country just 24 hours after its development had been completed at Riverside Junior High School.

Technically, the capability to make Scenario #2 a reality is with us today. However, the cost of two-way communications and expansion in the number of nodes requires a significant amount of funding. It was suggested, therefore, that perhaps this capability might be tested in one region to determine its feasibility.

III. Selection

Of all the file design features, "selection" generated the most controversy. There are basically two points of view. First, it was suggested that only those practices shown to be effective through demonstrated measurement of the impact population should be included in the file. This view is held by those who ascribe to the dissemination of only proven, promising, exemplary programs.

The alternate point of view holds that practices need not be proven to hold value for other educators since (1.) success is dependent on a number of variables which may be altered in a replication site, (2.) there is value in knowing what failed under which conditions, (3.) segments or components of projects or practices that failed may be extremely effective (for example, materials generated by a project may be of value even though the instructional program, failed), and (4.) validation is misleading since it is a process that is time bound (valid-dated) and holds no significance for the practice adaptations that occur over time.

This discrepency in points of view seems to hold regardless of the audience group and gives rise to the issue of whether "selection" be a system input concern or output screening capability. Educators at all levels seem to disagree on this issue. The only general agreement seems to be among educators who view the Practice File as filling an MIS function and therefore desire all projects to be included. Also, it would appear that as one moves up the educational hierchy, the concern for proven or validated information increases. This is understandable since the higher levels allocate funds for practice development and replication and therefore desire that only the best practices resultant from those funding efforts are made "public". This is a very real political concern.

III Selection - continued

To illustrate the potential magnitude of the political implications....

Scenario #3

The National Practice File design includes an input process whereby all Federally and State funded practices are included routinely. They are included when funded and updated as evaluative information is available. Evaluation data is related primarily to achievement gain and/or measurable affective impact and expressed as a coded ratio representing the number of months a student is exposed to a practice over the number of months student gain demonstrated. The coding is numbered "01" to "08" with "01" representing those ratios closest to or less than .5 (student achievement equals twice as much or more of months exposed to practice). These codes are searchable or limitable fields, therefore educators can restrict their output solely to proven practices (codes 01, 02, 03 and 04).

However, on April 24, 1978, U.S. Senator Claxton, a member of the Senate Education Committee receives the committee agenda which indicates that a review of ESEA legislation and appropriations is scheduled for May 12. Senator Claxton asks one of his aides to retrieve, by Federal fund source, the practices reported in the National Practice File. The output is voluminous so Senator Claxton asks his aide to organize the output by fund source and within fund source, by evaluation code and for each evaluation code, to total the project costs. Dutifully, the aide undertakes this task and finds that further organizing the data by state yields some comparisons of interest with regard to student achievement gains, and funds expended. For a large eastern state, he finds that of the $130 million of ESEA Title I funds expended for local assistance, only $10 million are associated with projects that demonstrated one month student achievement gain for each two months of exposure (coded "07" in the practice file). Aggregate data for all states receiving ESEA Title I funds are no less intimidating. Thus, a rather gloomy picture is apparent with regard to the success of ESEA Title I.

In an eloquent and articulate manner, as is characteristic of Senator Claxton's presentations, he raises serious questions at the May 12th Senate meeting, which the National Practice File data substantiates fully. Through the course of several committee meetings it is suggested that ESEA Title I funds be severely cut on a national scale and that the following year a full congressional inquiry be made into all of the ESEA expenditures. Proponents of the ESEA legislation and intent argue vehemently to avoid drastic cuts in Title I but they can demonstrate no hard evidence such as that which consistently prints out from the National Practice File.

The result in the Senate Committee is an overwhelming vote to decrease Title I by 30% for the following year and to create a sub-committee to initiate a full investigation of Title I and other ESEA provisions. The recommendations are sustained by the House and full Senate and reflected in the appropriations vote which reduces Title I funding (and other areas) by 30% for FY'80.

III. Selection - continued

Scenario #3 should make clear the potential political implications of a sophisticated National Practice File.

Aside from the philosophical political issues, the selection feature alternatives are influenced greatly by the overall purpose of the file. If the purpose is to improve use of existing practices or materials, then the file should concentrate on those practices currently in place and the design should focus on formative evaluation data. On the other hand, if the purpose is to increase educational options, then the question of or need for proven practices becomes less an issue for the reasons stated above. It is worth noting here, that by virtue of the fact that there is no current national effort focused on either purpose, that a body of information collected for the purpose of improving use would also significantly increase educational options. Given that observation, it may be wise to initiate the system focused on what is being used for which there is a body of formative evaluation data.

A design initiated along those lines might incrementally move toward the purpose of increasing options while concurrently providing "consumer education" so that potential users might better judge those practices that have less formal evaluative data available. In either case, it was strongly suggested that the design be able to accommodate the dynamic nature of practices and the variance of their performance in varying contexts.

Aside from the criterion oriented issues, there are process concerns related to whether the input be centralized or decentralized. It was generally felt that as the selection became less centralized, the variability of input would increase.

III. Selection - continued

A popular suggestion that addresses both the criterion and process issues was to decentralize input to a multi-level configuration (national, regional, state, intermediate and local) and thereby allow for the development of unique selection criteria at those levels thus reflecting the variance of concern for proven quality. Such a design would also "take the heat off" the system since agencies recommending the practice for inclusion would be noted in the file content.

Obviously, in light of the philosophical differences, political implications, and the current state of the art with regard to evaluative techniques, this is a difficult issue to resolve. It was identified early as such and is dealt with briefly in a separate paper submitted to NIE. The reader is referred to that paper entitled "Selection As An Issue Affecting Development of A National Education Practice File".

The design alternatives identified in the above paper and during the process of generating file ideas are shown below:

1. Adopt the current ERIC process of subjective screening accomplished by clearinghouses.

2. Utilize a review panel (or panels) to screen input based on an agreed upon, demonstrable criteria.

III. Selection - continued

3. Include all practices submitted, citing what evaluation/validation technique (if any) was applied and when to the practice. For instance, "JDRP Approved", "State-administered evaluation design", or "no data available".

4a. Adopt a uniform means of expressing learner outcomes (for learner oriented practices) and include all practices allowing the user to define what outcome level (demonstrated effectiveness) if desired.

b. Adopt a uniform means of expressing learner outcomes and only include the better practices in the file.

5. Systematically gather user feedback and include it as part of the database ("scratch pad" technique currently in use by the Macomb Intermediate School District, Michigan).

6. Include a "peer critique" of the practice (differs from above in that critique may be prepared by a non-user).

7. Include only those practices that have a capability to deliver either detailed documentation or personalized assistance relative to the practice.

8. Only include those practices already documented but available through fragmented sources (NIE Catalog, OE/NDN Catalog, state validated, etc.).

9. Develop a bi-level system whereby the national file contains only those practices meeting a uniform selection criteria and subfiles existing at the State level containing those practices felt by the State to be of value but not able to "pass" the national selection process.

III. Selection - continued

10. Include those practices recommended for inclusion by SEA's with SEA's developing their own criteria.

11. Develop a multi-level selection process involving national, regional, state, intermediate and local agencies all submitting input based on criteria developed at their respective levels. Input would include a note regarding the criteria and the agency submitting the practice for inclusion in the file.

If the issue were simply to limit the volume of input, suggestions in that regard included:

- Limit the content areas to be considered
- Limit the grade levels to be considered
- Include only "hot topical" practices
- Limit content by media format or publication type
- Limit content input by geographic area
- Include only those that can deliver implementation documentation or technical assistance
- Date of practice (especially films)

If one or more of the above limiting techniques were utilized at the outset (i.e. selected content areas), it would be the intent to gradually phase into the inclusion of others. Such a limiting technique will probably be required for the pilot test and during initial implementation of the system.

IV. Processing

It is universally felt that the ERIC processing procedures should be maintained as closely as possible. Decisions relating to content and source availability shall ultimately determine how much of the processing can and will be via modified ERIC procedures or perhaps via ERIC as it is currently organized. Generation of tapes and user products were procedures viewed as requiring little or no modification.

Indexing and abstracting procedures would require some modification based on the content included. Suggestions regarding abstract format modifications which have implications for indexing and abstracting were the inclusion of the following information or fields:

- Indication of type of evaluation conducted and when it was conducted
- Funding source
- Recommended for inclusion in the file by (source)
- Location code (regional/state)
- A "link" field that refers user to related file content
- Initiation date
- Current status of project
- Indication as to where project has been replicated or where materials have been used
- Target population of the practice
- Financial requirements for replication
- Transferability scale
- Extent of technical assistance services available

IV. Processing - continued

-Contact person (phone and address)

-Materials available and cost

-Descriptive information regarding material use

-Scale of measured student outcomes

-A date for each data element to indicate recency of updating

An organizational configuration for acquisition processing shall vary depending on the file content, therefore, the input process could potentially involve many of the agency types indicated in Section II (Acquisitions).

V. Vocabulary Development and Maintenance

As was the case with processing, it was generally agreed that indexing vocabulary be consistant with the ERIC Thesaurus. It was felt that priority should be given to the rapid inclusion of many terms that are more practice oriented or in popular use.

The maintenance of the vocabulary, once new terms have been initially included, can be accomplished via the Vocabulary Improvement Committee structure currently operating. There was, however, some concern that the committee be utilized more frequently and that the procedure for including terms be streamlined somewhat to reduce the time required for adding or deleting terms.

With regard to improving the current vocabulary and its use, it was suggested that terms be treated in a hierarchical fashion and that specific rules be established for the consistant use of generic as well as specific terms. Specific vocabulary shall be required to accommodate the inclusion of many of the information or fields added to the current ERIC abstract format.

VI. File Maintenance

The ultimate decision relating to source availability shall, to a large extent, determine the file maintenance procedures. For instance, if the practice file is a document/material based system similar to ERIC, facility for purging is severely limited. It was generally felt that the practice file design must have provisions for physically updating or deleting specific records. Suggestions regarding updating included:

On-going projects - every six months

Promising practices - annual

Demonstration projects - every other year

Validated projects - every four years

It was also suggested that record updating or deleting could be initiated at various agency levels in the acquisition configuration through routinized procedures developed by those agencies. For instance, a regional exchange or SEA might decide to annually verify all records representing practices in their geographic domain. Any required updating or deletions would then be forwarded to the National Education Practices Clearinghouse. At the clearinghouse level, the modifications would be accomplished quickly, preferably in an online mode. It was felt that the practice file should serve no historical purpose but that as records were deleted, they could be forwarded to ERIC for inclusion in the central file if that were deemed appropriate.

With the above suggestions in mind, it would appear that the practice file should be ERIC-compatible but with more centralized access so as to allow for efficient file maintenance in a timely fashion, via an online capability.

VII. Source Availability

File design ideas for this file feature (those that adhere to a document-based system) were in apparent conflict when initially presented. However, upon analysis, rather than be in conflict, they appear to be at varying points along a continuum defined by the amount of financial resources available to implement the practice file.

For print materials, the varying modes of availability (listed in order of preference, given sufficient financial support) are:

- -Actual copy of the material located in resource centers (see below)
- -Facility for hardcopy reproduction
- -Microfiche availability

For non-print materials, it was suggested that they be located in depositories in the following locations (also listed in order of preference, given sufficient financial support) and available for user review:

- -In intermediate agency and large city school district resource centers
- -In teacher centers
- -In state resource centers
- -Regionally (regional exchanges)

The above suggestions relate to a document-based system and therefore present problems for pursuing the suggestions under Section VI (File Maintenance) especially with regard to an update and purge capability.

VII. Source Availability - continued

In opposition to a document-based system, there were many who felt (1.) the highly transient nature of the file, (2.) the need for online or highly efficient updating procedures, and (3.) the realistic amount of resources likely to be committed to implementation of the practice file, all dictate a non-document based system of a referral nature. A system of this kind requires that the practices listed have staffing or agency capability to respond to the vast number of potential user inquiries.

With regard to insuring that the greatest number of practice staff and agencies do have capability to respond to requests, it was suggested that future NIE and OE funding programs require generation of an abstract format and the committment to provide implementation documentation for a two-year period (can be variable) and technical assistance on a cost-recovery basis. This would insure that those practices developed with Federal funds have a minimal capacity for responding to user inquiries while at the same time meeting Federal dissemination requirements.

This capacity to provide assistance for those practices developed through Federal or other funds raises an issue regarding whether or not the intent of the file is to be focused on direct user contact or contact via an intermediary. This issue is very much related to the concern with "stand alone" content discussed in Section I. The examples given above represent practices that do not stand alone or, that are not readily available to stand alone and therefore have implications for an intermediary service as either a design feature or a prerequisite context within which the practice file must operate. This issue is discussed in fuller detail within Section IX (User Products and Services).

VIII. Search and Retrieval System

The selection procedure chosen shall have implications for the design search and retrieval capabilities. For example, if the design ultimately selected for test and implementation adheres to a selection alternative that is least discriminatory (no criteria related to learner outcomes), then the ability of the user to discriminate while in a search mode becomes extremely important if the design is to accommodate those users who only desire practices whose success has been demonstrated. This shall require that the fields (if included as a modification of the current ERIC format) related to evaluation outcomes, type of evaluation and others shall need to be searchable fields. Those fields suggested in Section IV above are particularly relevant with regard to this capability.

The design must also include the capability to search and retrieve the practice file either as a portion of ERIC or independently. This can be accomplished by concatenating the files thus allowing for this capability.

Since the retrieval suggestions relate specifically to the suggested abstract field modifications (with the exception of concatenation), they shall not be repeated here.

A final suggestion regarding the search and retrieval design relates to the need for a "free text" search capability. Though it was felt that the addition of new information fields would go a long way toward solving many of the current search and retrieval problems and deficiencies, a free text capability was thought to be a basic requirement. This was thought to be necessary since (1.) there is a time lag for the inclusion of new terms in the Thesaurus, (2.) some popular terms may

VIII. Search and Retrieval System - continued

be obviously of temporary value and never included in the Thesaurus, (3.) there are many phrases (multi-word) in popular use that have a high degree of relevance to practitioners but will never be pre-coordinated indexing terms and (4.) if the narrative section of the abstract were more highly structured, the free text searching capability would be a technique utilized to great advantage.

The capability for two-way communications suggested in Section II (Acquisitions) has implications for the terminal hardware and though not a search or retrieval design component, it is a factor that should be kept in mind. The suggestions related to the search and retrieval design features do not appear to include capabilities beyond the software currently available.

IX. User Products and Services

Products

The potentially highly transient nature of a national practice file holds many implications for the nature of the user products. Though it was suggested that a monthly file addition, deletion and update catalog be published, most suggestions related to more targeted publications of a selective dissemination of information (SDI) nature or to mass distribution of media presentations (video tape, slide, etc.) of selected practices. The production of media presentations might eventually be facilitated by Federal and State funds already provided many projects (NDN demonstrators, State validated projects, etc.) for dissemination purposes. This type of user product, which might be located in regional or state resource depositories extends the scope of the resource base beyond an initial awareness mechanism and thereby becomes a critical tool for linking agents attempting to facilitate the diffusion of successful practices.

The specific product suggestions were:

- Hardcopy SDI publications targeted by audience and content for periodically announcing new acquisitions (these could be included in ERIC when the practice file were updated)
- No general announcement of acquisitions on a monthly basis
- Video presentation of selected practices prepared and mass distributed for location in resource centers (example of this being done by Alaska)

IX. User Product and Services - continued

Products - continued

-Audio presentation of somewhat indepth typical questions and answers asked by educators considering replication of a given practice (could be mass distributed or available via an -800- phone number)

-Monthly catalog announcing additions, delections and updates of the file

-Lists by media

-Mini lists by topic

-Information analysis products

-"The best of the practice file"

-Products developed by intermediate agencies

Selection of alternative products for ultimate implementation shall be largely dependent upon the financial resources available. Since the preparation of user products is costly, it was suggested that the hardcopy SDI products be generated through the current ERIC Facility where these documents are readily produced from tape. Other practice-specific, indepth products for selected content should draw upon dissemination funds available from other sources.

It would be appropriate to approach commercial publishers regarding the preparation of media presentations of selected practices since the procedure for deciding which practices to be included would undoubtedly entail an analysis of demonstrated educator need or demand. This, in effect, would define the potential market and perhaps attract the interest of publishers to produce multi-media demonstrations and place review copies in the system depositories.

IX. User Products and Services - continued

Products - continued

The suggestions incorporating video or audio presentation of practices available regionally or via phone grew from the experience of users, linkers and the NDN network itself that "demonstration" is a valuable, if not necessary diffusion strategy. Expanding the typical conception of a resource base to include an initial level "demonstration" represents a tremendous cost savings (since many media presentations are prepared but have little national visibility) and is very appropriate as a component of a practice file given the suggested content.

Other products such as Thesaurus, descriptor postings, etc. should be prepared and maintained along with, and as part of, the routine function of the ERIC system.

Service

The delivery of service was felt to be most appropriate if it followed the same process as was outlined for the acquisition process. In short, those closest to educational practices and knowledgable about potential candidates for inclusion in a practice file are also close to the potential users of such a system. Therefore, efforts should be made to encourage the development of service delivery (via database venders) within those agencies in key positions in the acquisition scheme (intermediate agencies, SEA's, teacher centers and regional exchanges).

In that regard, it was also suggested that a substantial training and orientation program be designed and implemented once the practice file is operational. This training program might be coordinated nationally but delivered via many of the agencies suggested in Section II (Acquisitions).

IX. User Products and Services - continued

Service - continued

It was also suggested that there be an -800- phone number for general user questions about the practice file and for referral to local service points or resource depositories.

It was generally felt that a proactive program of orientation and system demonstration should be undertaken when the file is implemented. Activities would include system demonstrations at national meetings such as the Dissemination Forum, NEA and AFT national conferences as well as regional and state conferences.

The suggestion under "products", above, that entails video presentations, represents a departure from the typical file design capabilities. Though many reasons can be generated for and against the specific suggestion regarding video presentations, the suggestion undeniably represents a move toward the intermediary or linker function found to be invaluable for the ultimate, effective utilization of information that cannot "stand alone".

Discussions of this and other file features constantly reverted to the need for intermediary services which transform, adapt or otherwise "fit" information to suit a receiver's context while still maintaining content validity and problem solving capability.

The extent to which the intermediary function can be a part of the file design is a question very much related to resources. Certainly an extensive intermediary component as part of the file design is out of the question. However, operation of the file within a context shared by the intermediary function is a very real possibility. For instance.....

Scenario #4

You will recall that in Scenario #1 Ms. Kathy Pierce was seeking career awareness materials for her grade 4 students with reading difficulties. In that scenario, she found some "stand alone" material to be available and used them to solve her problem. Let us presume there were no "stand alone" materials available, but rather the print-out most relevant referred her in the following manner:

> "This career awareness project which is specifically designed for students with reading difficulties has been approved by the Joint Dissemination Review Panel and is funded by the National Diffusion Network as a Demonstrator. Further information regarding the project can be obtained from your NDN State Facilitator whose name, phone, and address can be obtained from your Practice File Service Representative."

Upon reading the above, Kathy calls her service representative at the BOCES to find out who the NDN State Facilitator (SF) is. She finds that the SF is Glen Anderson and that he is located at the State Education Agency. She calls him regarding the project and Glen sends her some multi-media awareness materials. Upon reviewing them, Kathy finds the project has implications for the entire elementary level and reviews the materials with her principal and several other teachers. At about that time, Glen, who is making a follow-up call to Kathy, discovers that perhaps the school might be interested in adopting the project. A meeting is arranged and held with the principal, other teachers, Kathy and Glen. During the meeting it is decided to arrange a training visitation by the Demonstrator project. Glen handles the details of the training visitation and the principal arranges for substitutes so the regular teachers may take part in the three day training session.

The initial training takes place and two months later a one day follow-up session takes place. Within three months the career awareness program is fully installed in Rocky Mountain Elementary School.

Certainly this process is much more involved than that represented in Scenario #1. The process is facilitated by the SF and, in fact, the intermediary role played by the SF is required in order that positive closure be reached in this instance.

The role of an intermediary becomes more critical as the amount of "stand alone" content in the file decreases. Therefore, decisions regarding content shall greatly determine the extent to which the file design shall have to interface with an intermediary network. If an interface with an intermediary network is required, a great deal of planning shall have to be undertaken so as not to overload the intermediary or create user expectations of the intermediary that are not realistic.

Scenario #4, though representative of the need for an intermediary, does so in the simplest case. In that instance, awareness materials were available, the project was a demonstrator and thus had funds for travel and training, and it was a project handled by an SF. More frequently than not, none of those factors are present, thus making the job of an intermediary nearly impossible. To organize a file containing practices which fall in the latter category, and then expect an intermediary to provide efficient services would undoubtedly make the "nearly impossible", "absolutely unthinkable".

The practice file contractor might facilitate the transformation process by providing models of transformation and training in how such transformations might be accomplished.

Concurrent with the considerations being undertaken with regard to this file, serious consideration must be given to the intermediary function in U.S. education. Such programs as NDN, State Capacity Building and the Education Extension Program must clearly understand the demands to be placed on intermediaries if file content is of a nature that it cannot stand alone. If an intermediary capability is not developed to complement the National Practice File, then the file development effort might concentrate solely on those practices that can stand alone or those practices for which an intermediary is funded (NDN).

IX. User Products and Services - continued

One final suggestion related to services dealt with commercial materials and the capability for users to actually bulk order commercial materials or order review copies of materials cited in the file. This suggestion also has implications for the two-way terminal capability.

In general, all of the suggestions relating to user products and services represented an attempt to bring the practice file closer to the user in a more personalized utilitarian way.

X. Organization for Operating the File

The ultimate content and appropriate acquisitions design for that content shall play an important role in determining (1.) the organizational relationships required to maintain the file and deliver services as well as (2.) the administration and organization of a central unit to implement and oversee the file operation.

As was suggested in Section II (Acquisitions), once a content decision has been made, Part II of Product 1.2 might become an investigation of agency potential within an organizational configuration covering several levels (national, regional, state, intermediate and local).

In addition to determining what the key agencies currently do with regard to functions related to the practice file, it must be determined what incentives are required to encourage agencies to undertake and maintain functions supportative of the practice file.

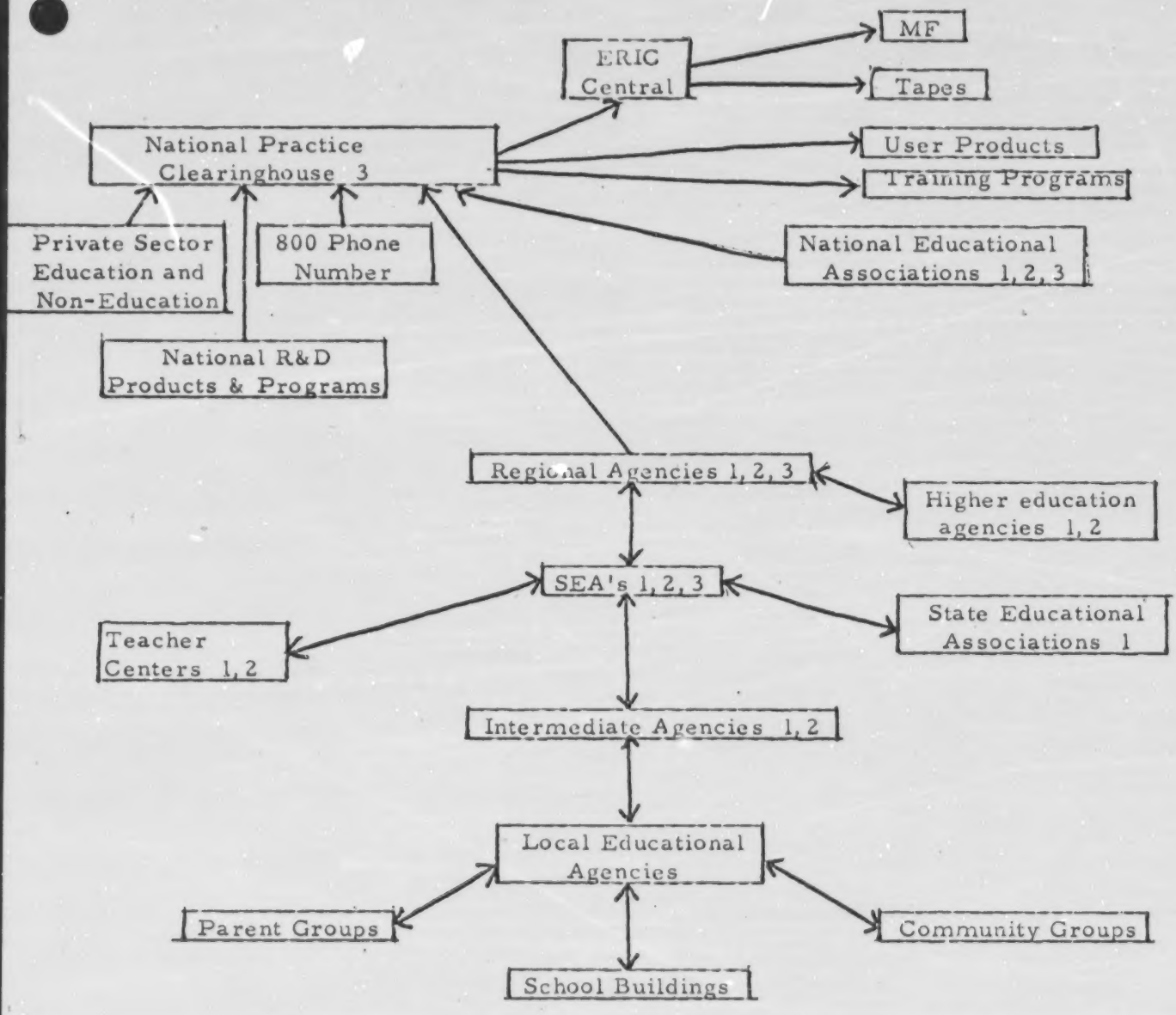
The question of incentives is a critical one since it was pointed out that although (1) the intermediate agencies are in a critical position with regard to file maintenance and delivery and (2.) they have a need for the availability of a practice file, their natural focus is and would continue to be on delivery unless appropriate incentives were made available to encourage and support an acquisitions effort and the establishment of the appropriate collaborative relationships.

This condition is undoubtedly true at all levels of a potential organizational configuration and must be considered as an integral part of the implementation steps and as it relates to resource requirements. Some easily identifiable incentives to encourage and sustain system functions, especially acquisitions, might be Federal mandate of input, direct funding of agencies involved, prestige-oriented

X. Organization for Operating the File - continued

reward techniques or service trade agreements ("put a practice in the file and have access to all others"). These and other incentives will have to be explored with a variety of agencies to determine which are appropriate and sufficient to cement functional, collaborative relationships.

Rather than attempt to illustrate unique configurations of organizational relationships for each content suggestion, the following schematic encompasses all, or most of the organizations suggested. All or part of this schematic will be appropriate when content decisions are made.



1. Service delivery nodes
2. Potential resource depositories
3. Maintenance role regarding acquisitions

The size and capabilities of a central staff will also vary dependent upon the content area decided upon. It was suggested that if the content is heavily practitioner oriented, the national practice clearinghouse would have to be staffed with abstractors and indexers with recent classroom experience and, that the indexing should be done by a team rather than an individual.

If content were of a nature wherein many collaborative relationships are required for establishing an acquisition network, staff with working knowledge of many of those agencies would be beneficial. Given the suggestion that a major training and orientation program be developed, staff shall be required for both development and implementation of that program. Management staffing requirements would be similar regardless of content orientation.

As indicated in Section II (Acquisitions), funds or other incentives shall be required to initiate an acquisition process within the key agencies involved (regional exchanges and SEA's).

The nature of the overall configuration must be one that is centralized for processing functions, but highly decentralized for acquisition functions.

To illustrate the context within which a system organizational configuration might best operate....

Scenario #5

Concurrent with the development of the National Practice File during the years of 1977 through 1979, other efforts were evolving which led to a context within which the Practice File might effectively operate. These key efforts included the creation of a Federal level Educational Dissemination Bureau (EDB) which was charged with integrating the dissemination activities required and/or funded by a multitude of other Federal agencies.

Scenario #5 - continued

One of the first programs implemented by the EDB was the Educational Extension Program which coordinated, built upon, and expanded the NDN facilitator concept as well as the linkage efforts underway through State Capacity Building programs and individual state efforts. These long needed efforts at the Federal level brought together a tremendous amount of resources that heretofore had been expended without being part of a general plan for educational dissemination. Areas such as vocational education, special education, bilingual education, compensatory education and general education now became contributors to a single process and plan. This was with good reason since all of those program efforts ultimately reside in a single school building and more often than not, impact the same children.

With this shift in bureaucratic structure at the Federal level came efficiencies at all levels. Perhaps more importantly, there came a realization among those previously administering individual efforts that a coordinated effort afforded greater resources to achieve a common goal. No longer was it a question of gaining cooperation between NDN linkers and Capacity Building linkers....they were the same people.

These programmatic changes and the strength that emerged from them was the context within which the National Practice File was implemented.

Technological advances in the recent years also had a tremendous impact. Terminal capability was present in nearly every school district in the country thus allowing for information system access and input direct to and from the local level. Interactive television was operating regionally allowing for remote practice demonstrations and training. The information industry itself had taken steps moving toward database utilities thus freeing educational agencies from much of their data development and processing burdens and allowing them to focus on information acquisition and transfer.

The practice file became much richer when commercial publishers undertook cooperative efforts to uniformly describe their materials and appropriate contexts for their use and load them as practice file content. With this capability, which not only facilitated improved use but also increased educational options, the state and intermediate agencies as well as the teachers unions became much more service oriented. Service was in terms of direct benefits to teachers in the form of inservice programs and individual professional development all of which focused on improving the ability of teachers to choose the practices and materials best suited for their students.

Scenario #5 - continued

Obviously, this sense of direction and the increased resources in this area of practice improvement resulted in superior teacher performance which was dramatically reflected in an accelerated rate of positive student achievement.

The context described above gives rise to a basic question. It is not a question that ponders the relationship of effective dissemination to improved teacher and student performance. We and the Federal government know that relationship exists or there would be no funds and we would make no effort! It is not a question that ponders whether technology can achieve the levels indicated. It is well on the way to doing that now! It is not a question that ponders whether cooperative efforts in this area yield benefits. The entire Capacity Building Program is built on that premise for state agencies!

Simply, the basic question is....why not?

If intermediaries are to be effective, they must be part of a national plan and must have ready access to a rich resource base. If the intermediaries and the resource base are to be part of a plan, then the Federal level must adjust so as to build the capacity to develop and implement such a plan.

At minimum, there must be an environment that demonstrates that the Federal level is moving in that direction if a National Practice File is to be funded adequately and be more than just another automated catalog.

Summary of Major Suggested Alternatives by Feature

I. Content

- Major variable relates to where a source falls on the "Autonomy of Resource Continuum".
- Other variables relate to level, content, media type, availability, and level of evaluation.

II. Acquisitions

- Interactive vs. limited interactive vs. one-way technically mediated communication links are alternatives related to the interation between acquisition organizations (no technical link is also an alternative which is representative of the current ERIC system).
- Nationally vs. regionally vs. State vs. intermediate based core of acquisition efforts are alternatives related to an ultimate design configuration.

III. Selection

- With regard to practice performance criteria, suggestions fall on a continuum from those having only recent, hard data demonstrating success to, those with no data, or data demonstrating failure.
- With regard to the selection process, suggestions fall on a continuum from centralized authority to, decentralized, direct input authority. Approximately mid-point in that continuum might be a multi-level system of referral upward to a centralized authority with screening taking place at each level.

Summary of Major Suggested Alternatives by Feature
-continued-

IV. Processing

-ERIC compatible with the inclusion of new information fields as is appropriate to the content decided upon.

V. Vocabulary Development and Maintenance

-ERIC vocabulary with the addition of new "practice-oriented" terms and provision for more efficient term addition or deletion.

VI. File Maintenance

-Online file content modification capability felt to be necessary. Extent and organization of this online capability shall be determined by resources available.

VII. Source Availability

-For a document-based resource, the preference was for local availability of the actual documentation. Funding restrictions shall probably dictate microforms of the source.

-For non-print resources, the preference was also for local availability. Funding restrictions will probably dictate regional depositories

-For practices whose source is really a process, it was suggested that the developers have the responsibility for dissemination and/or technical assistance much the same as NDN Demonstrators have now.

Summary of Major Suggested Alternatives by Feature
-continued-

VIII. Search and Retrieval System

- The alternatives suggested here relate primarily to the format modifications discussed in Section IV and do not appear to be constrained by any technical limitations.

IX. User Products and Services

- With regard to products, suggestions were consistant with products currently being produced by ERIC clearinghouses with the exception of video or audio distribution of awareness level information on many practices contained in the file.
- With regard to services, a strong training and orientation function was felt to be necessary. Also, the intermediary service function was felt to be critical especially for that content which cannot stand alone.

X. Organization for Operating the File

Since content and the acquisition procedure shall drive the major portion of the external organization configuration, the emphasis here was placed on what incentives shall be utilized to sustain system collaborative efforts. Mandate, money and mutual benefit (to contributer and system) were suggested as key incentives.

The central organization consisted of a national clearinghouse for educational practices that was complimentary to other ERIC clearinghouses and dependent on central ERIC functions to a large degree. The basic technical departure from other ERIC clearinghouses would be the centralization of the database to facilitate online updating and acquisitions.

National Education Practice File Development Project

Meeting of the Project Advisory Group

December 15, 1977

SUMMARY

The first meeting of the Project Advisory Group (PAG) for the National Education Practice File Development Project was held in Washington, D.C. on December 15, 1977. The following PAG members were in attendance:

Edward Ball
Rodney Barth
Ted Brandhorst
Donald Ely
George French
Thomas Hartsig
Kenneth Komoski
Diane MacIntyre
Joel Magisos
Harry Osgood
Frank Thompson

Also attending were Mollie MacAdams, National Institute of Education, and Gregory Benson and Charles Mojkowski, Bibliographic Retrieval Services, Inc.

Following introductions, Benson provided PAG members with an overview of the project, stressing the major deliverables for Phase I and the overall time lines for the project. The principal agenda item for the meeting was the review of Product 1.1, National Education Practice File Ideas. As a backdrop to a discussion of Product 1.1, members were asked to briefly discuss their major concerns with respect to the development of a national education practice file. Among the concerns raised were: 1) the likelihood of significant underfunding, 2) the need for definitions of terms, 3) the need for an understanding of contexts,

4) quality control, 5) autonomy of resources, 6) overall purpose of the practice file, 7) need for attention to the commercial sector, 8) avoiding a premature organizational configuration, and 9) accommodating resources that require a human interface.

The majority of the session was taken up with a review of alternatives for determining the specific features which the file should have. In addition the PAG members raised and discussed several general issues related to the file. Comments and suggestions are listed by file feature. Efforts have been made to reflect the Advisory Committee suggestions in Product 1.1.

Content

It was suggested that the breakdown of content into the three categories listed in the draft of Product 1.1 might not be as productive as other dimensions might be. Several dimensions were identified along which content might vary. For example, one useful content variation is the degree to which the material in the file can stand alone. It was pointed out that NDN materials are not designed to stand alone and thus might be used inappropriately by practitioners. This suggestion raised the question of whether resource managers and developers can guard against inappropriate uses. Also discussed was the key role of transformation. To some extent file output would always need to be transformed for client use.

It was suggested that we need to develop scenarios of use which would provide us with illustrations of how the file output might be used in different contexts. For example, a major effort is being undertaken to study and develop a national linkage system. Clearly such a system would impact heavily on some of the more predominant scenarios of use.

Acquisition

While most persons interviewed for Product 1.1 indicated that a modified ERIC acquisition procedure would be best, it was pointed out that the ERIC Clearinghouse system may not be close enough to the practice community. Some discussion took place on whether acquisition could be achieved through an interactive system with input being directed into the file from a large number of sources. It was pointed out that it is possible to use the same equipment for both sending information to the file and for retrieving information from it. Such a system would likely be very costly. If this were the case, we would need to identify what organizations close to the practice community might be able to collect information as a normal part of their operation. Such organizations as intermediate units and teacher centers were suggested for this role. It was stated that there were likely to be impediments to crossing fifty state political boundaries in seeking to establish acquisition procedures within states. On the other hand, there are existing mechanisms, such as the NDN and Title IV-C, which are seeking to identify and disseminate exemplary programs.

Selection

The issue of quality control dominated discussions regarding selection of products, programs, or practices to be included in the file. Several points along the continuum were represented among the PAG membership. On the one hand it was suggested that the federal government may not want to be in the business of developing files of practices of unknown or poor quality. On the other hand the technology of evaluation and the present conduct of validation leaves much to be desired. It was pointed out that maintaining a uniform standard of quality will be

more difficult as the number of input modes is increased. It was suggested that the concept of "learner verification and revision" might be used as a substitute for validation since it avoids a "stamp of approval" and emphasizes a process of improvement.

In the real world, evaluation and program selection is based on other variables in addition to student performance. If we are to include only exemplary practices in the file, a more real-time system of providing evaluation information will need to be designed and implemented.

An alternative to limiting file content to exemplary or validated programs would be to include all information together with sufficient descriptive information regarding performance data to enable the consumer to make appropriate decisions. Additional resources would need to be spent in educating the consumer to evaluate file output according to the information provided.

It was suggested that selection procedures be employed which keep the size of the file at a manageable level during initial start up. Dated materials should be purged from the file and maintained in a separate archive. The overall goal should be a minimum amount of material with a maximum amount of utility. The question is whether such a goal can be achieved solely through the file or through the use of intermediaries in transforming file output for practitioner use. It was suggested that there needs to be a balance between improving the use of information and increase the options available to practitioners.

It was suggested that the test file might concentrate in a narrow content area (e.g., basic skills) but cover the variety of materials which are available at present. Another question related to whether the file should concentrate on just elementary and secondary education or also deal with adult and higher education.

Processing

PAG members made few suggestions for modifying the material presented in the draft of Product 1.1. Some ideas were discussed for interactive updating of file content, particularly because of the "half-life" of much of the information. Additional descriptors would likely need to be added to accommodate different file content. In addition, existing descriptors would need to be reviewed. It was stated that the cost of processing materials for the practice file might likely exceed that for the ERIC system if the ERIC processing system is the model used.

Source Availability

A major question relating to source availability was whether source documentation needed to be maintained in a central clearinghouse. Maintaining source documentation would likely be more costly than that for the ERIC system, depending on the nature of the materials themselves. Also, providing source documentation might be both cumbersome and costly particularly with respect to media materials. In addition to materials provision, information might be maintained on demonstration sites and training resources available. Given the consumer information model, the user should be told of the availability of all materials and services.

Search and Retrieval System

One of the issues discussed under this topic was the involvement of the commercial sector. It was suggested, for example, that if commercial materials were abstracted in the file, a user might be able to order sample materials through a communications system appended to the retrieval system. This issue raised the question of the use of a federally supported system to provide a marketing vehicle for the commercial sector. It was decided that additional investigation would need to be made into this issue.

Another major concern which impacted on the type of search and retrieval system to be designed was that relating to who the user would be. There exists systems in which terminals are available to classroom teachers for information retrieval although such a system might be available in the future. It was not envisioned that the file would be accessed directly by the classroom teacher.

User Products and Services

Given the constantly changing nature of the file, the question was raised as to whether typical ERIC user products, such as RIE and CIJE, would be necessary to promote user access. PAG members suggested that we would need to think of more flexible awareness products ranging from topical bibliographies to information analysis products. Here again the concept of transformation is important to our understanding of what products and services file managers may provide as distinct from those transformations of the file output which would be done by other types of intermediaries.

Given that the development and maintenance of such a file will require an extensive collaborative effort, it was suggested that the project conduct an investigation of (1) organizations potentially capable of performing activities required and (2) incentives required to sustain such relationships. Such an inventory could guide the development of strategies for providing incentives for organizations to contribute to the maintenance of the system through a variety of service modes.

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EXISTING EDUCATIONAL INFORMATION PRODUCTS AND SERVICES: COORDINATION WITH A NEW PRACTICE(S) FILE

PART I

of

PRODUCT 1.2

NATIONAL EDUCATION PRACTICE FILE DEVELOPMENT PROJECT

PREPARED FOR BRS, INC.

by

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RESEARCH AND INFORMATION SERVICES FOR EDUCATION

AS PART OF

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INTRODUCTION

One of the early tasks required by the RFP for the Practice File Design and Development effort is aimed at identifying existing products and services with which a new file in the domain of education practice-related information should be coordinated. It is assumed that the intent of this step is to make a conscious effort to assure the federal government that no national machine-readable practice file presently exists in and of itself and to review existing efforts in light of file design ideas which are related to Product 1.1. This present document (Part 1) is the first of two being drawn up by Trohoski and Brickley of Research and Information Services for Education (RISE), an information service center which has been active in the field of providing information services and practice/product data to local educators for more than a decade. The second document (Part II) will summarize some of the issues and concerns obtained from a review of the literature and from past and present efforts at practice file development to specifically inform design questions later in the project.

This two part approach to Product 1.2 was decided upon since the RFP timeline did not allow for a later effort of this nature to (1.) specifically inform the decisions to be made regarding the preliminary and final design work and (2.) address issues uncovered during the development of Product 1.1. The original timeline required concurrent development of Products 1.1 and 1.2 and, therefore, did not allow for targeted research related to 1 and 2 above. This two part approach was discussed with the NIE project monitor and affords greater benefits to be derived from Product 1.2.

INTRODUCTION (Continued)

Within the limitations of time and resources, RISE compiled the following information through an intensive review of a variety of data bases and resources. While the authors would have liked to explore files of files and perhaps, the difference between a "bibliographic reference file" and other types of files, etc., they limited themselves, at least initially, to a standard literature review on practice files that exist. They excluded information related to what such a practice file might need to look like and concentrated on existing examples of such files. They did not limit themselves to machine-readable files because it is our basic belief that no such files exist on a nationally available scale. Therefore, within the limited time resources, they searched the major resource directories and manually sought to identify and update knowledge about existing efforts in the practice file area. They did not, however, utilize personal interview or telephone correspondence to determine in a survey sense what kind of action was presently going on, leaving this instead to the efforts being carried on in conjunction with the visitations which are being carried out by the BRS staff.

Gregory Benson,
Project Director

NOTE: The second and more substantial portion of Product 1.2 was generated in the form of an annotated bibliography and incorporated into the development of Product 1.4/1.5.

PART I - THE PROBLEM

In reviewing both the RFP and the BRS response, we found it difficult to clarify the construct of information products and services with which a new file in the domain of education-practice-related information should be coordinated. First of all, what does "coordinated" mean in this construct?

Does it mean:

- that each or every element of the new file-acquisitions policy, scope, indexing, abstracting, and delivery format -- should be determined at a nationwide level,
- that the file should only cover those practices not presently being compiled by somebody else,
- that scope should be universal (e.g. all educational practices - instructional, management, evaluation, elementary and secondary, higher education, bilingual, equal educational opportunity) or that it should be limited to those scopes presently being addressed by existing delivery systems, that in cases where the nationwide status of an element is not common to all, that the process used by the majority rules (i.e., where access to information files is treated idiosyncratically by existing information services, as in the example below--viz.

  user accesses file directly (he buys the catalog and uses it as a purchase guide)

  vs.

PART I - THE PROBLEM (Continued)

user accesses file through intermediary (he calls or writes an RX or Information center or State Facilitator, for a list of practices)

or

search for practices is done manually only, computer only, or both and it is done alone or in conjunction with search of other (non-practice) files.

As we tried to verbalize the construct we concluded that any new file should, where possible, be flexible to meet any existing context; it should reflect compatibility with major existing resources. Since the two most pervasive information resource files are ERIC and the NDN, in terms of national coverage/use, then any new practice file ought to coordinate with these.

PART II - OUR FINDINGS

Our key finding is that there is no presently existing, practice-based, educational information product or service of a comprehensive, nationwide, machine-readable file nature. Having said that, it is important to add that there are hundreds of existing or emergent efforts which could loosely be described as educational information products or services which might require coordination with a new practice file -- some are national, some state or regional; some are content/audience-interest limited, some respond to all comers; some rely on manual process, some on computer system -- but all have a potential stake in the practice file. Some examples (but not a comprehensive list) follow:

1. Five Multistate Regional Exchanges (RDX)
2. 23 State Capacity Building Projects (SEA based, with resource and linkage components)
3. 48 State Facilitators in the NDN
4. Special Education Regional Resource Center (SEMACS, et al.)
5. ERIC Clearinghouses
6. State-based regional instructional material services

and the list could also include in-state exemplary practice efforts (Pennsylvania has such an effort in IV-C, Title 1, and Inter-group Education) Information centers not operating with State capacity building funds such as ADELL (adult education and life-lone learning) and WEECN (Women's Educational Equity Communication Network). These also will be a source as well as potential users of the new practice file. The list could also include any number of catalogs, directories, and other printed products.

PART II - OUR FINDINGS (Continued)

The designers of a new file might find profitable a case by case analysis of these and the myriad other services and products. But, (1.) their strengths and weaknesses are probably not very apparent, (2.) the state of the art of evaluating these services and products is, at best, embryonic, and (3.) time available in Phase I of this project is insufficient.

We conclude, therefore, that only minimal benefit would be derived from further efforts to analyze strengths and weaknesses of existing products and services. (Cf. Task 3B). We do suggest that:

- Indexing accommodate both manual and computer (free text and descriptor) retrieval
- Descriptive data elements for practice records include at least those defined by the NDN abstracting process (Education Programs that Work) and the NIE Catalog, and cross reference to ERIC descriptors.
- Validation results be in JDRP and/or other national terms
- Descriptions of delivery formats, i.e. program descriptions (document); visitation opportunities (original site and satellite sites); technical assistance availability (training and/or consultation resources, their costs, turnaround time, and geographical accessibility); staff, facility and materials requirements, etc.

Each design feature of the new practice file will need to be conceived in terms of the great variety of existing styles, vocabularies, and

PART II - OUR FINDINGS (Continued)

provincialisms of existing products and services. They vary greatly in content coverage, scope, indexing, quality control, delivery mode, etc.

To illustrate this problem further, we have, in the remainder of this paper, reviewed (a) three compilations of educational products and services, (b) three additional products, and (c) three additional services. In the case of the compilations, we cite their variety and richness. In the other two cases, we attempted to describe the resources in terms of the features of the new file as required in the matrix used for the "file-reporting format".

SOURCES OF PRODUCT EDUCATIONAL PRACTICES: Features of Sources

Sources	Acquisitions	Selection	Processing	Vocabulary Development
Educational Programs that work (USOE) Washington, D.C.: United States Office of Education, 208 pp.	Programs Validated by Joint Dissemination Review Panel	All programs validated by JDRP currency	Staff of Various projects write descriptions for catalog. ERIC descriptors posted on abstract. Indexed by alphabetical title and source of funding, i.e. Title 1	Post ERIC descriptors on abstract, no index of descri tors, grouped by subject area
Catalog of NIE Education Products Washington, D.C.: National Institute of Education, 1605 pp.	All current and past products funded by NIE, includes Lab and Center Products of commerical and non-commercial nature.	Currency must meet requirements of form submission, particularly claim statements of Equal Educational Opportunity. All products must have been completed by Nov. 30, 1975	Developer submitted standardized description of product. The products are grouped by 16 broad categories. They are indexed by 6 different factors: subject, user, developer-author, geographic location and media	No thesaurus or controlled vocabulary subject headings for the 16 broad categor
Reading Programs that work: A National Survey Trenton, N.J.: New Jersey State Department of Education, Division of Research, Planning, and Evaluation. 112 pp.	Programs validated by either N.J. State Validation or the Joint Dissemination Review Panel	Selected Reading Programs from the N.J. State and the Nationally Validated pool	Uses a Matrix formated by Grade levels, application to specific audience tests, facilities, equipment performance objectives classroom management staffing cost and validation	None

SOURCES OF PRODUCT EDUCATIONAL PRACTICES: Features of Sources (Cont.)

File Maintenance	Source Availability	Search & Retrieval Sys.	User Product & Service	Organization for Operating Files
The 4th edition is currently being printed. Each edition reflects additions to the national pool. Programs no longer functioning are noted in special section.	Name, address and telephone number of developer, availability and costs are included in abstract	Manual. Plans for computerization are underway	Technical assistance available from developers and intermediaries (state facilitators)	Far West compiles catalog and is planning to computerize files.
Partition update of catalog for Reading and Language Arts is ERIC compatible in the format of NDN catalog	Name and address of developer or commercial distributor and cost information and included in abstract	Manual	Technical assistance available in some programs. T.A. provided by commercial or developer consultants	No information available
This is the third edition of this document. Each edition reflects a new set of validated products	Included in abstract are the name, address and telephone number of developer, availability and cost information	Manual	Technical assistance available from developers and intermediaries (state facilitators)	No information available

SOURCES OF SERVICES EDUCATIONAL PRACTICES: Features of Sources

Sources	Acquisition	Selection	Processing	Vocabulary Development
National Career Guidance Communications Network for Rural and Small Schools Center for Voc. Edu. Ohio State University Columbus, Ohio	Field based practices, invitation to submit	No quality criteria limited to content area of innovative guidance in rural schools	Self reported data	No information available
National Education Association Inservice and Professional Improvement Project Washington, D.C.:NEA	Obtained generic inservice programs or products by purchase or contribution	Teacher Inservice programs, products, and practices	EPIE (Educational Products Information Exchange) Style Catalog extensive 8 page descriptions	ERIC descriptors
Resource and Referral Service Center for Voc. Educ. Ohio State University Columbus, Ohio	Solicitation for information from resource organizations such as networks, centers, agencies, associations, systems, clearinghouses, programs & projects	Limited to organizations and agencies that submit Resource Organization Profile	Self reported data in format of Resource Organization Profile and additional descriptive information available on organization	No information available

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SOURCES OF SERVICES EDUCATIONAL PRACTICES: Features of Sources (Cont.)

File Maintenance	Source Availability	Search & Retrieval Sys.	User Product & Service	Organization for Operating Files
No information available	Network provides primary documents	None except that provided by network	Descriptive Fact Book, Newsletter, User assistance	No information available
No information available	Project will loan sample or make referral to primary source	Manual	8 page descriptions of each product	NEA - not machine-readable
No information available	Service will refer educators to agency	Referral only; no document retrieval service offer	Referral to existing resources	Center for Vocatio Education Contract to Research & Development Exchan of NIE

PUGH, ELIZABETH and others

1976 Survey of ERIC Data Base Search Services. Bethesda, Maryland: ERIC Processing and Reference Facility (June). 43 p.

Information acquired for this survey was requested from sites providing computerized searches of the ERIC data base on a regular basis. Candidates for the listing came from a variety of sources such as subscribers to ERICTAPES, attendees at the ERIC Data Base Conferences, users of one or more of the on-line services, those having continuing operating agreement with any of the major educational reference centers and those appearing in prior directories.

The information entries in the survey document were written by the Facility staff and were reviewed by the appropriate organizations for content and accuracy. Each entry provides information on the contact with address and telephone number for each organization, the population served, files available, inquiry submission, search output, cost per search, turnaround time, search system used, notes and date entry was prepared.

The survey is organized geographically - i.e. by state and within state by city. Additional information for users may be obtained from the vendor or the service organization. Source information is given on both.

The ERIC Processing and Reference Facility has produced two editions of the Survey to date. It is assumed they will continue to conduct the survey and maintain the base. No efforts to computerize the data have been planned.

PETERSON, JOHN and others

1977 Information Resources 1977. Columbus, Ohio: Resources and Referral Service, The Center for Vocational Educational, Ohio State University, 68 p.

Information Resources 1977 contains data entries for 32 data bases and 13 dissemination systems which are related to the educational field. The material has been compiled and selected by the Resource and Referral Service Staff, a Regional Dissemination Exchange Contractor.

The self reported information of data base organizations includes name, acronym, subject of base, size, date of establishment, update frequency, search aids, type of source document, forms of retrieval information document copy availability, remarks, information contact and address, date of verification, vendor and conditions.

The information submitted by the educational dissemination agencies pertained to organization name, acronym, major function, services, publications, descriptive abstracts, principal clients, information contact and address and date of verification.

Since the information for this document has been provided by the Resource and Referral Service Staff from their Resource Bank, it is assumed as the Bank of resources expands the number bases and dissemination agencies will increase. No attempt to utilize a controlled vocabulary is in evidence.

WOODBURY, MARDA

1976 A Guide to Sources of Educational Information, Washington, D.C.: Information Resources Press, 371 p.

Woodbury's book, while the most extensive listing of educational information services and materials, practices products uncovered, is limited to four sources of information. These sources are printed information about resources and practices and information gained from educational libraries and information centers, organizations and government agencies which can provide answers to special queries and special search services or bibliographic services.

The material contained in this document was selected for its currency, and its scope, almost entirely American based. This work is an expansion of Woodbury's previous work, A Guide to Educational Resources (ED 094 170).

The data is self reported by the providers of services and product developers. The catalog type entries are grouped into three broad categories: 1) printed research tools, 2) special subjects which include curricular resources and educational products, and 3) nonprint sources such as computerized retrieval sources.

There has been no effort to provide a controlled vocabulary or to assign ERIC descriptors to the individual entries. The Index includes a key to the subject areas, and proper names.

No attempt to computerize the material has been discerned. The information has been updated from the original work.

Users of the document are provided with source availability through the inclusion in the catalog entry of the developer or author's name and address. Costs for services or products are supplied where appropriate and available.

Since this is the most extensive resource, it shall be utilized as a reference to inform decisions to be made later in the project regarding preliminary and final designs. As mentioned earlier, Part I of this product is aimed at identifying these key resources and determining which contain references related to the potential practice file design. With these now identified as tools for future use, Part II shall focus on literature to inform the Feasibility Analysis (Product 1.5) and/or specific design questions that arise for which current efforts hold little or no implications.

BRS Bibliographic Retrieval Services, Inc

Corporation Park, Bldg. 702
Scotia, New York 12302
(518) 374-5011

SCREENED FILE IDEA LIST

PRODUCT 1.3

Submitted as Part of

NIE Contract #400-77-0095

The National Education Practice File Development Project

February, 1978

Introduction

This product is the documentation of the selection process (and outcomes) engaged in by the NIE Internal Project. Advisory Group for the National Education Practice File Development Project on January 23, 1978.

As indicated in the original RFP, "DRG will select three ideas (for each file feature) for files in the education practice-related domain from those presented in Product 1.1 (File Ideas)." That process is recorded here which meets the RFP requirement for this product which states. . . . "The contractor shall record those (ideas) selected and submit that record to DRG."

From this document, BRS shall develop Product 1.4 (Preliminary Design Alternatives) and 1.5 (Feasibility Analysis). Those documents shall discuss the file feature alternatives selected in light of their feasibility for ultimate implementation in a final design.

Appended to this document is an outline of the alternatives presented in Product 1.1. References to that outline are made in the body of this document (ie "S5", "S7") and those alpha-numberic codes relate to the specific alternative contained in the outline.

Greg Benson
Project Director

National Education Practice File Development Project

NIE Internal Advisory Group Meeting

January 23, 1978

The meeting of the NIE Internal Advisory Group was held at NIE offices on January 23, 1978. In attendance were Robert Chesley, John Coulson, Charles Hoover, Susan Klein, Ward Mason, and Mollie MacAdams from NIE; Jerry Fletcher from the Office of the Assistant Secretary of Education; Gregory Benson, Charles Mojkowski, and Ronald Quake from BRS, Inc.

Following introductions, Gregory Benson reviewed the objectives for the meeting:

Objective 1 Review Products 1.1 (File Ideas) and 1.2 (Existing Resources) for their content, manner of development and presentation ...and (for Product 1.1 only)

Objective 2 Decide which three configurations of file design alternatives shall be selected for further expansion in Product 1.4 (Alternative Preliminary Designs). Product 1.3 (Recommendations for Selection) shall be a documentary of this selection process.

Benson indicated that, although the number of alternatives with respect to some file features was large, the Advisory Group need only to determine what logical combinations of alternatives within features were appropriate for providing a detailed look at three alternative files. He also pointed out that selecting certain alternatives for some file features constrained or determined choices made in other features.

Product 1.1 was reviewed by the Advisory Group. Benson indicated that, following the Group review of the documentation, he intended to "fine tune" the documentation for distribution to several different audiences. The following suggestions were made with respect to the documentation:

1. Investigations regarding file development activities for Special and Vocational Education should be documented.

2. A footnote should be included stating that a formal data collection process was not permitted and a semi-structured interview was used because OMB forms clearance was not sought.

3. The "stand alone" concept (see page 2, 3, and 32) needs clarification.

Considerable discussion of the "stand alone" concept followed. Benson indicated that the External Advisory Group had suggested that some materials, such as those of NDN, might not be included in the file since they could not "stand alone", that is, be used without supplementary technical assistance. It was pointed out that this project cannot be concerned with the development of anything more than a file. Although we must be concerned with the environment in which the file will be used, this project cannot deal with a total information delivery system. Just as with ERIC, it is impossible to legislate against improper use of the file, particularly since such an effort would imply a relatively monolithic view of what utilization entails. It was suggested that the "stand alone" concept is not relevant for the practice file given the Advisory Group's determination to have the broadest possible coverage.

The Advisory Group then turned its attention to the issue of including commercial materials in the file. On the one hand, a caution was raised as to the legitimacy of using a federal system to provide a marketing mechanism for the commercial sector. Also, it was suggested that the inclusion of commercial materials might be in competition with NICEM. If commercial materials were to be excluded, it was questioned whether Lab and Center material marketed by the commercial sector would also be excluded. One solution suggested was to include commercial materials but require some financial support from that sector.

If the purpose of the file is to help schools improve practice through the examination of alternatives, it was suggested that commercial material should be included. The majority of materials used in schools is provided through the commercial sector. It was argued that teachers are seldom any more aware of alternatives among commercial practices and products than they are of those from the public sector. The Advisory Group indicated that it was too early to make an "in-out" decision but that one of the three alternatives should deal with such materials. The issue is probably more a question of how commercial materials will be included in the file rather than whether they will be.

As a means of evaluating and selecting file design alternatives, the Advisory Group discussed the most appropriate way to address both features and alternatives within features. It was suggested that there are three sets of features which can be dealt with somewhat sequentially:

Set 1 Source Availability - Content - Selection

Set 2 Acquisition - Processing - File Maintenance - Vocabulary Development and Maintenance

Set 3 Search and Retrieval - User Products - User Services

SOURCE AVAILABILITY

Three alternatives were discussed with respect to source availability. The Advisory Group decided that there were three kinds/levels which can be dealt with in a file: (1.) descriptions or abstracts which could be stored directly on the computer; (2.) a document providing details about the practice or product; and (3.) the actual materials related to the practice or product. It was decided that having the system provide the third type would be beyond the feasibility of present resources. It was decided that the two alternatives to be investigated would be: (1.) providing only descriptions/abstracts; (2.) providing both descriptions/abstracts and documentation. It was pointed out that, as the system matures over time, it may be possible to accommodate the provision of the actual materials related to the product or practice of a non-print nature.

CONTENT

The Advisory Group agreed to use three criteria for eliminating content alternatives from the list provided. These criteria were: (1.) not related to instruction; (2.) some or all are already available through other sources; (3.) obviously not feasible given present level of resources, technology and policy problems. As a general principle, it was agreed that the pilot test should deal with a wide range of content options and, through evaluation and monitoring of use of the file, empirically determine what content is used. At this early stage of

development caution should be taken in avoiding conduct of premature feasibility analysis.

Content Alternatives		Decision
C 1	JDRP validated projects	Included
C 2	SEA validated projects	Included
C 3	Managerial practices	Included, focus on managerial practices related to instruction
C 4	References to other resources	Already available through other sources
C 5	Non-validated projects (with or without evaluation information-as long as they are document-based)	Included
C 6	Needs assessment techniques	Included
C 7	Competency based education programs	Included
C 8	Exemplary programs (evaluation data available)	Included
C 9	Commercially produced materials	Included - if we can include examination copies
C 10	Curriculum materials (from all sources)	Included
C 11	Federal and state funded R&D projects	Already available through other sources
C 12	Private R&D projects	Some already available through other sources; not feasible at present
C 13	LEA demonstration sites	Not really a separate category
C 14	Funding sources	Already available through other sources

Content Alternatives		Decision
C 15	Alternative education programs	Included
C 16	Community involvement programs	Included
C 17	Individualized education programs	Included
C 18	Educational Lab and Center products	Already covered under C 5 and C 8
C 19	Educational legislation	Already being studied through another contract
C 20	Other sources (catalogs) or files being developed (resource referral)	Already available through other sources (RDx)
C 21	SEA documents	Many available through ERIC and many not related to instruction
C 22	English language materials from other countries	Included
C 23	Inservice education programs	Included
C 24	Human resources	Obviously not feasible given present level of resources
C 25	Computer based resource units (eg. LAPS)	Already available through other sources
C 26	Books in the field of education	Should be considered for ERIC but not excluded if related to instruction
C 27	Bilingual materials	Already available through other sources; obviously not feasible given present level of resources
C 28	Tests and measurements	Included (some are also in ERIC)
C 29	Educational organizations	Some already available through other sources; not feasible given resources
C 30	Unique entries from catalogs	Obviously not feasible given present level of resources

SELECTION

After reviewing the eleven alternatives relating to selection, the Advisory Group decided to examine the feasibility of three distinct levels of quality in terms of screening procedures. S5 and S7 were seen as different from the other options. S7 is similar to L6 on page 5 of the alternatives document. S9 and S10 were seen as options within S11. S1 was eliminated because the Advisory Group felt a practice file would need to employ a different type of screening than that accomplished by the Clearinghouses. After much discussion, the Advisory Group decided on the following three options/levels of quality: (1.) S4b and S2; (2.) S3 and S11; (3.) S4a.

An additional issue pertaining to the selection alternatives was the question of the size or scope of the unit which would be abstracted and entered into the file under a separate file number. Specifically, it was pointed out that BRS will need to investigate whether whole programs or parts of programs will be indexed within the file for retrieval (e.g. a unit within the IGE program).

With respect to limits on selection the Advisory Group decided that L1, L2, and L3 were not to be considered at present. L4 was to be maintained as a limitation because it was similar to SA 3 under Source Availability. L6 was accepted as was L7. The latter was discussed at length, particularly with respect to the feasibility of maintaining both a clear and an archival file. It was suggested that such items as a contact person with respect to a particular practice or program would be one element requiring a date.

PROCESSING

Several of the alternatives were viewed more as data elements rather than as part of the abstract itself. The Advisory Group instructed BRS to recommend which elements should be part of the abstract and which should be maintained as data elements. A second recommendation was that BRS not use codes in the development of the file abstract. This recommendation was made based on the ERIC experience with publication type codes. P5, P7, and P17 were rejected by the Advisory Group because they were clearly not feasible as presented. It was decided, however, that some selected data elements in the file might require a date. In addition it was suggested that the inclusion of a contact person should be investigated by BRS with respect to cost feasibility. BRS was also instructed to investigate the implications of The Privacy Act with respect to maintaining information on contact persons.

VOCABULARY DEVELOPMENT and MAINTENANCE

During the discussion of this file feature it was suggested that the development of a new Thesaurus might be investigated as a third alternative. After some discussion it was decided that the only reasonable option for investigation should be VM 1, principally because use of this alternative should comply with the requirement that ERIC compatability be maintained where possible.

FILE MAINTENANCE

Of the two general options available, the Advisory Group suggested that BRS investigate the feasibility of developing a purge/update capability for the system. Some discussion was given to the issue of quality control for any purging or updating capability. Several different methods of implementing such a capability were discussed, particularly the use of a "call-in" tape which could be used by intermediaries in the field to input changes into the system. It was also indicated that purging documents from the file might be done in such a way as to create an archival file of purged documents. BRS will test two or three variations of a purge capability.

ACQUISITIONS

Of the four alternatives presented the Advisory Group determined that there were indeed only three major alternatives: A1, A4, and the establishment of an acquisition capability outside of the ERIC system. The latter alternative was discussed at length, since it was unclear what relationship such a capability would have to the ERIC system. It was suggested, for example, that organizations closer to the practitioner might be used to acquire materials. Other functions could be performed by the Clearinghouses. Some discussion centered around the potential role of Central ERIC with respect to a practice file. The need for decentralization of the acquisition function was underscored since contacts with practitioners would need to be maintained.

SEARCH and RETRIEVAL SYSTEM

Of the five options suggested by BRS only SR 3 was eliminated by the Advisory Group since ERIC compatability was a major criterion for file development. SR 1 and SR 2 were combined as one option. SR 4 and SR 5 related to another alternative with respect to search and retrieval - the degree of structure required for the abstract. The Advisory Group recommended that BRS examine the feasibility of a semi-structured abstract for documenting practices and programs.

USER PRODUCTS

The alternatives in this category were offered as potentials for an on-going file operation rather than a pilot test. During the pilot test BRS will provide some form of an announcement document. BRS will make recommendations to NIE as to the form and content of such an announcement. Although an annual catalog was not seen as extremely valuable, it was pointed out that without universal and ready access to computer facilities, some form of a catalog would be necessary. Developing such a catalog was seen as a low-cost effort.

The use of some form of SDI publication was recommended for consideration. Options UP 4 through UP 10 were seen as options for a more extensive field test. BRS was instructed to provide more elaboration on each of these options. The implementation of any of them is a function of time and dollars.

USER SERVICES

Although the Advisory Group did not deal with the four options offered in this category, BRS will treat these in much the same way as options UP 4 through UP 10 under User Products.

Following a review of all file features, some discussion was held on how BRS should present the alternatives to NIE. Two general ways were discussed: (1.) examining alternatives within features or (2.) linking all alternatives within each feature to all alternatives in other features. The Advisory Group recommended that BRS concentrate on the former method but spell out whatever obvious linkages appear among alternatives and features. The objective is to facilitate the selection of a most appropriate file by NIE staff. The following chart describes the alternatives selected for feasibility study by NIE.

Alternatives for Feasibility Analysis

I

Content

See pp. 2 & 3 above

Selection

- use learner outcomes w/screening
- review panel

- all practices, cite evaluation where available
- multi-level criteria

- use learner outcomes w/o screening

Source Availability

- abstracts/descriptions only

- abstracts/descriptions and documentation

II

Acquisitions

- use new ERIC Clearinghouse for all operations

- use existing ERIC Clearinghouse for all operations (one or more)

- use non-ERIC organization for acquisition

Processing

pros and cons of each alternate (see p. 5, above)

File Maintenance

- Develop system purge/update capability (explore variations)

Vocabulary Development and Maintenance

- Use ERIC Thesaurus, adding new terms where appropriate

III

Search and Retrieval

- Practice File searchable with ERIC

User Products

- SDI-type newsletter/ publication
- monthly/annual catalog

User Services

- Examine all alternatives

File Design Features and Suggested Alternatives

CONTENT

C 1 -NDN validated projects

C 2 -SEA validated projects

C 3 -Managerial practices

C 4 -References to other resources

C 5 -Non-validated projects (with or without evaluation information)

C 6 -Needs assessment techniques

C 7 -Competency based education programs

C 8 -Exemplary programs (evaluation data available)

C 9 -Commercially produced materials

C10 -Curriculum materials (from all sources)

C11 -Federal and state funded R&D projects

C12 -Private R&D projects

C13 -LEA demonstration sites

C14 -Funding sources

C15 -Alternative education programs

C16 -Community involvement programs

C17 -Individualized education programs

C18 -Educational lab and center products

C19 -Educational legislation

C20 -Other sources (catalogs) or files being developed

CONTENT - CONTINUED

C21 -SEA documents

C22 -English language materials from other countries

C23 -Inservice education programs

C24 -Human resources

C25 -Computer based resource units

C26 -Books in the field of education

C27 -Bilingual materials

C28 -Tests and measurements

C29 -Educational organizations

C30 -Unique entries from:

-Programs That Work

-NDN Materials Catalog

-NIE Catalog

-Lab and Center catalogs

ACQUISITIONS

A 1 -Establish a distinct ERIC clearinghouse to develop relationships with producers.

A 2 -Establish acquisition relationships with each regional exchange (or SEA in those regions where there is no exchange). SEA's should be provided a model whereby they establish an acquisition network within the state that includes:

-Intermediate agencies

ACQUISITIONS - CONTINUED

-LEA's

-Private producers

-Federally and State funded efforts

-Teacher centers

-Libraries (school and public)

-Teachers associations

-Regional accreditation agencies

A 3 -Develop acquisition potential within a large national organization

A 4 -Current ERIC structure absorbs National Practice File

Technical Consideration

-Apply technology to implement one or two-way communications for acquisitions purposes

SELECTION

S 1 -Adopt the current ERIC process of subjective screening accomplished by clearinghouses.

S 2 -Utilize a review panel (or panels) to screen input based on an agreed upon, demonstrable criteria.

SELECTION - CONTINUED

S 3 -Include all practices submitted, citing what evaluation/ validation technique (if any) was applied and when to the practice. For instance, "JDRP Approved", "State-administered evaluation design", or "no data available".

S 4a -Adopt a uniform means of expressing learner outcomes (for learner oriented practices) and include all practices allowing the user to define what outcome level (demonstrated effectiveness) if desired.

b -Adopt a uniform means of expressing learner outcomes and only include the better practices in the file.

S 5 -Systematically gather user feedback and include it as part of the database ("scratch pad" technique currently in use by the Macomb Intermediate School District, Michigan).

S 6 -Include a "peer critique" of the practice (differs from above in that critique may be prepared by a non-user).

S 7 -Include only those practices that have a capability to deliver detailed documentation.

S 8 -Only include those practices already documented but available through fragmented sources (NIE Catalog, OE/NDN Catalog, state validated, etc.).

SELECTION - CONTINUED

S 9 -Develop a bi-level system whereby the national file contains only those practices meeting a uniform selection criteria and subfiles existing at the State level containing those practices felt by the State to be of value.

S10 -Include those practices recommended for inclusion by SEA's with SEA's developing their own criteria.

S11 -Develop a multi-level selection process involving national, regional, state, intermediate and local agencies all submitting input based on criteria developed at their respective levels. Input would include a note regarding the criteria and the agency submitting the practice for inclusion in the file.

If the issue were simply to limit the volume of input, suggestions in that regard included:

L 1 -Limit the content areas to be considered

L 2 -Limit the grade levels to be considered

L 3 -Include only "hot topical" practices

L 4 -Limit content by media format or publication type

L 5 -Limit content input by geographic area

L 6 -Include only those that can deliver implementation documentation or technical assistance

L 7 -Date of practice

PROCESSING

Maintain ERIC processing, but modify abstract format to include the following fields:

P 1 -Indication of type of evaluation conducted and when it was conducted

P 2 -Funding source

P 3 -Recommended for inclusion in the file by (source)

P 4 -Location code (regional/state)

P 5 -A "link" field that refers user to related file content

P 6 -Initiation date

P 7 -Current status of project

P 8 -Indication as to where project has been replicated or where materials have been used

P 9 -Target population of the practice

P10 -Financial requirements for replication

P11 -Transferability scale

P12 -Extent of technical assistance services available

P13 -Contact person (phone and address)

P14 -Materials available and cost

P15 -Descriptive information regarding material use

P16 -Scale of measured student outcomes

P17 -A date for each data element to indicate recency of updating

VOCABULARY DEVELOPMENT AND MAINTENANCE

VM 1 -Use ERIC Thesaurus adding new terms when appropriate

VM 2 -Develop hierarchical Thesaurus opposed to coordinate index

FILE MAINTENANCE

FM 1 -Develop system purge/update capability

FM 2 -No system purge/update capability

If FM 1 then:

FM 1A - Establish purge/update schedule

FM 1 B - Establish purge/update mechanism

1 B (1) - Direct by producer

1 B (2) - VIA intermediate (s)

Technical Consideration FM 1 (online)

If FM 1, establish remote, online purge/update capability.

SOURCE AVAILABILITY

SA 1 -Document-based system

SA 2 -Non-document-based system (referral)

SA 3 -Combination document, non-document based system

SOURCE AVAILABILITY - CONTINUED

If SA 1 or 3 then:

SA 4 -Microcopy of source

SA 5 -Actual source availability

SA 6 -System hardcopy facility

If SA 5, then actual source located:

SA 6 -In IA'S

SA 7 -In Teacher centers

SA 8 -In SEA's

SA 9 -Regionally

SEARCH and RETRIEVAL SYSTEM

SR 1 -Suggested format modifications be made searchable

SR 2 -Practice File searchable with ERIC

SR 3 -Practice File not searchable with ERIC

SR 4 -Non-structured abstract

SR 5 -Highly structured abstract

USER PRODUCTS

UP 1 -Monthly and annual catalogs

UP 2 -No monthly or annual catalogs

USER PRODUCTS - CONTINUED

UP 3 -Hardcopy SDI publications targeted by audience and content for periodically announcing new acquisitions (these could be included in ERIC when the practice file were updated)

UP 4 -Video presentation of selected practices prepared and mass distributed for location in resource centers (example of this being done by Alaska)

UP 5 -Audio presentation of somewhat indepth typical questions and answers asked by educators considering replication of a given practice (could be mass distributed or available via an -800- phone number)

UP 6 -Lists by media

UP 7 -Mini lists by topic

UP 8 -Information analysis products

UP 9 -"The best of the practice file"

UP10 -Products developed by intermediate agencies

USER SERVICES

Most suggestions here related to intermediaries and their importance. These suggestions are not within the purview of this project.

US 1 -Ordering capability for commercial materials

USER SERVICES - CONTINUED

US 2 -User feedback capability

US 3 -Training and orientation program

US 4 -An -800- Phone number for general user questions

• BRS Bibliographic Retrieval Services, Inc

Corporation Park, Bldg. 702
Scotia, New York 12302
(518) 374-5011

CONTENT SELECTION AS AN ISSUE AFFECTING DEVELOPMENT OF A NATIONAL EDUCATION PRACTICE FILE

SUBMITTED AS PART OF
NIE CONTRACT #400-77-0095
THE NATIONAL EDUCATION PRACTICE FILE DEVELOPMENT PROJECT

PREPARED BY
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DECEMBER, 1977

INTRODUCTION

On October 26, 1977, BRS contract staff met with NIE staff in Washington, D.C. to discuss the nature of the Practice File project and to discuss the future of specific contract activities.

The issue of content selection was discussed at length. In part, the resolution of this issue rests with the file designs suggested by the educational community. However, due to political, utility and cost-feasibility considerations, it was agreed that this issue potentially extends beyond the purview of this project and is lodged in a variety of philosophical points of view.

It was decided, therefore, that when contract activities uncover such issues that are potentially troublesome or that have implications beyond the scope of the project, that they be briefly documented and brought to the attention of NIE. This brief paper is intended to fulfill that agreement and outline the issue and present alternate solutions generated thus far in Phase I of the project.

The implications of adopting any one or a combination of one or more of the alternatives are not discussed in this paper. This is so since at the October 26 meeting NIE staff felt that the implications and design considerations may in fact be the topic of a separate NIE study. In short, the reader should keep in mind that

INTRODUCTION - CONTINUED

this is but a notice to NIE that there lies within the file design feature labelled "selection", the potential for a lengthy debate and possibly an organized study.

Conferences mentioned in this paper have dealt with this issue and perhaps NIE and the contractor can reach agreement drawing upon them and other existing documentation as guidelines.

WHAT IS CONTENT SELECTION?

Content selection for the purposes of this paper is viewed from both the perspective of (1.) whether or not a given educational practice shall be included in a National Education Practice File and (2.) providing information to potential users regarding the applicability of content already included in a practice file.

The current ERIC system concerns itself with selection from a technical perspective to a large degree (photographability of source documentation, etc.), and also deals with the qualitative decisions regarding content through a subjective process within the clearinghouses. Determining whether the current ERIC screening mechanism is suitable for the purposes mentioned above and, considering alternative procedures give rise to this issue.

WHY MUST WE BE CONCERNED WITH CONTENT SELECTION?

Concern with this issue arises from two perspectives. First, it is unlikely that a practice file will be able to accommodate the inclusion of all practices submitted or acquired for entry. This means that in the input phase, some systematic method of selection must be devised. This is a requirement of the RFP as a feature of the new file design.

Secondly, from a user's perspective, some mechanism must be devised to limit output to those practices most likely to hold potential for improving a given educational situation.

WHY MUST WE BE CONCERNED WITH CONTENT SELECTION - CONTINUED

These perspectives hold many sub-topical issues related to selection. For instance:

- Is widespread applicability to educational settings the major criteria?
- What if a practice is widely applicable but not "deliverable"? (No documentation or staffing capability exists for practice exportation). Should capability to deliver be a selection criteria?
- For learner oriented practices, should evaluation data measuring learner outcomes be considered in selecting file input?
- If widespread applicability, capability to deliver, and demonstrated learner outcomes are relevant, are they applied at the input side (as a selection device) or the output side (as a search capability)?

Two previous conferences sponsored by NIE that relate to this issue were held in Los Angeles in 1974 (Increasing the Use of Promising Practices Information by Local Educational Agencies) and Washington, D.C. in 1975 (Invitational Conference on Exemplary Programs and Practices). Both of these conferences dealt with a broader issue, but both conference reports contained recommendations related to the selection issue:

WHY MUST WE BE CONCERNED WITH CONTENT SELECTION - CONTINUED

(Los Angeles) "The lack of consistency in the identification, nomination, validation and/or selection of promising practices is a major barrier to increased use, and is a primary source of frustration to everyone. The lack of standards that local educators, State Departments of Education, and Federal Agencies all agree to results in the identification of many programs which do not deserve recognition, while many others remain unrecognized and inaccessible."

(Washington, D.C.) "The conference participants consistently expressed the opinion that NIE needs to support research on what are effective validation processes and criteria. It was further felt that NIE should pursue an aggressive leadership role at the Federal level in securing adoption of more uniform and effective validation processes and criteria across all Federal programs."

Obviously, this is not a new issue, however, if a practice file is to be reflective of the best practices or allow a user to identify the best practices, it must be resolved.

It is possible to devise a mechanism whereby existing validation criteria or evaluation outcomes, though not uniform, be included as a "searchable field" in the database. This minimizes the "system concern" with the issue and allows user access to a wider array of alternatives.

SOME DESIGN ALTERNATIVES

In the course of generating "file ideas" through group and individual meetings, the selection issue was consistently a difficult design feature to deal with. Some alternatives suggested include:

1. Adopt the current ERIC process of subjective screening accomplished by clearinghouses (which results in a rejection rate of approximately 50%).
2. Utilize a review panel (or panels) to screen input based on an agreed upon, demonstrable criteria.
3. Include all practices submitted, citing what evaluation/validation technique (if any) was applied to the practice. For instance, "JDRP Approved", "State-administered evaluation design", or "no data available".

4a. Adopt a uniform means of expressing learner outcomes (for learner oriented practices) and include all practices allowing the user to define what outcome level (demonstrated effectiveness) if desired.

b. Adopt a uniform means of expressing learner outcomes and only include the better practices in the file.

5. Systematically gather user feedback and include it as part of the database.
6. Include a "peer critique" of the practice (differs from above #5 in that critique may be prepared by a non-user).

SOME DESIGN ALTERNATIVES - CONTINUED

7. Include only those practices that have a capability to deliver either detailed documentation or personalized assistance relative to the practice.
8. Only include those practices already documented but available through fragmented sources (NIE Catalog, OE/NDN Catalog, state validated, etc.).
9. Develop a bi-level system whereby the national file contains only those practices meeting a uniform selection criteria and subfiles created at the State level containing those practices felt by the State to be of value but not able to "pass" the national selection process.

One or more of these alternatives may be explored if incorporated into a design ultimately subjected to a feasibility analysis. These alternatives will also be discussed by the Project Advisory Committee when Product 1.1 (File Idea List) is reviewed. Their recommendations will be forwarded to NIE. The final decision on this issue will be influenced greatly by the decisions made relating to content. Therefore, though the issue is being raised early, it is understood that the solution cannot, and will not be readily determined.